REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 5, 7, 8, 13, and 15-20 are pending in this application.

In the outstanding Office Action, Claims 7 and 15 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. patent 6,791,607 to Bilhan et al. (herein "Bilhan"). Claims 5 and 13 were rejected under 35 U.S.C. § 103(a) as unpatentable over Bilhan; Claims 8 and 16-20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Bilhan in view of U.S. patent 5,659,355 to Barron et al. (herein "Barron").

Initially, applicants note each of independent claims 5 and 13 is amended by the present response to further distinguish the claims over the cited references. Further, the presently submitted amendments to claims 5 and 13 do not include any new matter that would preclude entry of the present amendment.

Addressing now the above-noted rejections, those rejections are traversed by the present response.

Claim 5 recites, in part,

> black shading correcting means for correcting the image signal using a black reference level, said black reference level being obtained from said portion of said photoelectrically converting means for each line during an operation of the reading of the original image;
>
> wherein the black reference level used by said black shading correcting means for each line is obtained using black reference values, each of the black reference values being data of said portion of said photoelectrically converting means for a respective one of a plurality of lines,
>
> wherein the black reference level is a moving average of the black reference values for the plurality of lines,
>
> wherein the black reference level for a respective line is an average of pixel values in a main scan direction, the moving average being obtained from moving-averaging, in a sub-scan direction, the black reference values.

Claim 13 recites similar features and Claims 7 and 15 include the similar limitation that "the black reference level for each line is obtained from moving-averaging the black reference values for the plurality of lines."

Bilhan describes an image processing apparatus in which the user can program the number of optical black cells per line and the number of lines to be averaged by calibration logic.[1] Further, Bilhan describes scanning of the CCD sensor by horizontal and vertical scanning method.[2] However, Bilhan does not describe or suggest a "the black reference level is a moving average of the black reference values for the plurality of lines."

In other words, Bilhan describes that at the beginning of each particular line a moving average is taken in a main scan direction. For example, in col. 5, lines 29-31, Bilhan describes that a differential value obtained by the comparator 714 is stored in the register 726, and is forwarded to the DAC. However, there is no disclosure that the differential values of a plurality of lines are stored in the register and a moving average is taken of the differential values. Thus, Bilhan does not describe or suggest the black reference level is a moving average of the black reference values for the plurality of lines.

Further, in col. 5 lines 43-45 Bilhan mentions that CCD image lines are shifted in the vertical direction, and that the pixels on this line are shifted horizontally. However, nowhere does Bilhan describe that the moving average filter scheme described in Col. 4 averages a plurality of lines, the moving average being obtained from moving-averaging in a sub-scan direction, as is described in Claim 5.

Further, a rejection is proper only if the prior art references teach or suggest ***all*** of the claim limitations, see M.P.E.P. § 2143. It is clearly the case that in the outstanding rejection the primary cited reference to Bilhan does not disclose the above-noted feature, and the

[1] Bilhan, col. 5, lines 48-50.
[2] Bilhan, col. 5, lines 43-45.

outstanding Office Action has not pointed to any disclosure in Bilhan that actually teaches the above-noted feature.

The outstanding rejection also appears to clearly be an improper hindsight reconstruction of applicants' invention based only on applicants' own disclosure, and not on any teachings in the prior art. That is, Bilhan does not disclose the above-noted claimed feature and it is only applicants of the present invention that recognized benefits achieved in the claimed invention by utilizing a moving average of the black reference values for the plurality of lines, the moving average being obtained from moving-averaging in a sub-scan direction

Moreover, applicants note the entire basis for the rejection indicating that moving average of the black reference values for the plurality of lines, the moving average being obtained from moving-averaging in a sub-scan direction would be obvious in light of the flexibility of Bilhan does not appear to be based on any proper basis for a rejection.

If the outstanding rejection is based on Official Notice, then that position is hereby traversed and prior art is required to cite for the noted proposition.

Applicants respectfully submit, however, that the above-noted features distinguish over the applied art.

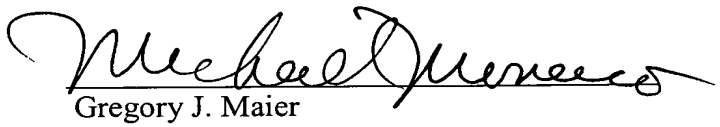
Thereby, the independent claims as currently written are believed to clearly distinguish over Bilhan.

Moreover, no teachings in Barron were cited with respect to the above-noted features or are believed to overcome the above-noted deficiencies of Bilhan.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599

Michael Monaco
Registration No. 52,041

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

I:\ATTY\JL\138708US\138708US AMENDMT TO OA OF 12.20.05.DOC